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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,592	06/27/2003	Tadashi Tsunoda	TOW-027	8406
959	7590	01/25/2006	EXAMINER	
LAHIVE & COCKFIELD, LLP. 28 STATE STREET BOSTON, MA 02109			PARSONS, THOMAS H	
			ART UNIT	PAPER NUMBER
			1745	
DATE MAILED: 01/25/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/608,592

Applicant(s)

TSUNODA, TADASHI

Examiner

Thomas H. Parsons

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 and 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claim 1-12 and 18-20 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 18 November 2005.

Specification

2. The disclosure is objected to because of the following informalities:
page 3, line 23, suggest changing "5a, 5b" to --6a, 6b--;
line 25, suggest changing "5a, 5b" to --6a, 6b--;
page 5, line 6, suggest changing "plate" to --plate 4--;
page 9, line 21, suggest inserting "gas" after "oxygen-containing";
page 29, line 12, suggest changing "The layout" to --the layout--; and,
page 30, line 4, suggest changing "over all" to --overall--
Appropriate correction is required.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:
Four cells "2" as mentioned on page 3, line 12; and,

Art Unit: 1745

“160b” as mentioned on page 33, line 17.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 13, 16 and 17 rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (5,049,458).

Claim 13: Sato et al. in Figures 6-11 disclose a fuel cell (29) comprising a pair of separators (24) and electrolyte electrode assemblies (25, 26, 26) interposed between the separators, the electrolyte electrode assemblies (25, 26, 26) each including an anode, and a cathode (25, 27), and an electrolyte (26) interposed between the anode and cathode (25, 27), wherein

Art Unit: 1745

each of the separators (24) includes a plurality of plates (22, 23) stacked together;
a fuel gas channel (36 as shown on Figure 2, and col. 5: 57-col. 6: 10) for supplying a fuel gas to the anode, and an oxygen-containing gas channel (see Figure 9, and col. 6: 11-28) for supplying an oxygen-containing gas to the cathode are formed between the plates; and
at least one of the plates has protrusions 94, 5) for positioning the electrolyte electrode assemblies between said separators (col. 4: 17-col. 5: 22).

Claim 16: Sato et al. in Figures 6-11 disclose least three protrusions (4, 5) provided for positioning each of the electrolyte electrode assemblies (25, 26, 26) inside the at least three protrusions with a clearance.

Claim 17: Sato et al. disclose a solid oxide electrolyte (col. 7: 16 and 35 which discloses the same electrolyte as that instantly disclosed as a solid oxide electrolyte).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. as applied to claim 13 above, and further in view of Guillot et al. (3,492,165).

Sato et al. are as applied, argued, and disclosed above, and incorporated herein.

Claim 14: Sato et al. do not disclose electrolyte electrode assemblies arranged along at least one virtual circle concentric with a central axis of the separators.

Art Unit: 1745

Guillot et al. discloses disclose electrolyte electrode assemblies arranged along at least one virtual circle concentric with a central axis of the separators.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the fuel cell of Sato et al. by incorporating the electrolyte electrode assemblies arrangement of Guillot et al. because Guillot et al. teach an electrolyte electrode assemblies arrangement that would have improved output capacity and fluid tightness thereby improving overall operating efficiency and capacity.

Claim 15: The Sato et al. combination discloses an inner circle, and electrolyte electrode assemblies arranged on the inner circle does not discloses an inner circle and an outer circle, and electrolyte electrode assemblies arranged on the inner circle are out of radial alignment with electrolyte electrode assemblies arranged on the outer circle.

However, one skill in the art at the time the invention was made would have known that the capacity of Guillot et al. battery could be increased by increasing the number of plates (3) to be piled on one another as well as by increasing the number of elementary cells to by included in plate 3. Increasing the number of elementary cells would obviously provided the claimed inner and outer circle and the arrangement of the electrolyte electrode assemblies on the circles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas H. Parsons whose telephone number is (571) 272-1290. The examiner can normally be reached on M-F (7:00-4:30) First Friday Off.

Art Unit: 1745

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


PATRICK JOSEPH RYAN
SUPERVISORY PATENT EXAMINER

Thomas H Parsons
Examiner
Art Unit 1745
